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Jones in the cognitive niche. The metaphilosophical problem of writing in the linguistic approaches to mind

Abstract. In this essay, I adopt a metaphilosophical approach to investigate the role of writing in the context of the development of a linguistic approach to the philosophy of mind. In the first section, I portray the 20th-century analytic and pragmatist philosophy as unitedly committed to countering the representationalist image of the origin of conceptual activity. The aim is to show how this tradition is, however, internally divided between those who do not ascribe an instrumental role to language and those who, conversely, continue to describe language in terms of a tool. In the second section, I suggest that the difference between the two positions lies in the choice of adopting oral or written language as models for interpreting the relationship between mind and language. In the third, I ask whether writing can be interpreted as a niche-building activity.

Keywords: linguistic turn, philosophy of mind, niche construction theory, writing and orality

Philosophical reflection on writing is at least as old as philosophy done in a written form. From the onset, writing is a metaphilosophical problem, that is, a problem concerning the very nature and method of philosophy. It is almost superfluous to recall the historical and philosophical relevance of the myth of Theut in Plato's *Phaedrus* or Derrida's theses on the primacy of writing over orality within the history of Western metaphysics.

In this short study, I would like to address the metaphilosophical issue of writing from the perspective of the linguistic approaches to mind. By "linguistic approaches" I mean the philosophical perspectives that adhere to the linguistic turn, thus assuming that the philosophical problems are linguistic and interpreting the mind as a product of the ability to master words in an intersubjective context.

Andy Clark (2006, p. 370) focused on "the role of language (and material symbols more generally) in providing a new kind of thought-enabling cognitive niche". He borrows the term "niche" from evolutionary biology, which introduced it to describe an animal-built physical structure that modifies a habitat to make it more suitable for survival. In Clark's conception, language is the material scaffold that aids thinking and reasoning about some targets. When he speaks of language as the ability to materialize thoughts into words, Clark almost takes it for granted that his main reference is to written language, or at least that his interpretation of the evolutionary function of language is based on the written word.

Mechane, n. 7, 2024 • Mimesis Edizioni, Milano-Udine Web: mimesisjournals.com/ojs/index.php/mechane • ISBN: 9791222317496 • ISSN: 2784-9961

At the end of *Empiricism and the Philosophy of Mind* (1956), Wilfrid Sellars introduces the myth of a fictitious ancestor, Jones, who developed a theory according to which overt verbal behavior is the expression of thoughts. According to the myth, Jones taught a community of Rylean ancestors to use the language originally employed to discuss public properties of public objects, for self-description, that is, to make private episodes (i.e., impressions and thoughts) thematic. At the end of his essay, Sellars asks whether this myth is truly fictional or whether the reader can recognize Jones as representing the human being itself "in the middle of his journey from the grunts and groans of the cave to the subtle and polydimensional discourse of the drawing room, the laboratory, and the study, the language of Henry and William James, of Einstein and of the philosophers who, in their efforts to break out of discourse to an *arché* beyond discourse, have provided the most curious dimension of all" (Sellars 1956, p. 196). This is why I have titled this essay *Jones in the cognitive niche*. If Jones stands for the human being in his or her endeavor to construct a cognitive niche, what role does writing play in this process? How did Jones achieve what he did? Does he communicate only through speech with his Rylean fellows, or does he also, and above all, *write* to them?

I will divide the article into three sections. In the first, I begin with a portrait of the 20th-century analytic and pragmatist philosophy as unitedly committed to countering the representationalist image of the origin of conceptual activity. The aim is to show how this tradition is, however, internally divided between those who do not ascribe an instrumental role to language and those who, conversely, continue to describe language in terms of a tool. In the second section, I will suggest that the difference between the two positions lies in the choice of adopting oral or written language as models for interpreting the relationship between mind and language. In the third, I will ask whether writing can be really interpreted as a niche-building activity.

1. The instrumental role of language

Two turning points mark the history of 20th-century analytical and pragmatist philosophy.

The first coincides with an inversion of the traditional explanatory order regarding the origin of conceptual capacities. Following Brandom (2000), who was in in turn inspired by Rorty (1979), one could say that the tradition that links Descartes to Kant takes for granted an order of explanation that "privileged the mind as the native and original locus of concept use, relegating language to a secondary, late-coming, merely instrumental role in communicating to others thought already full-formed in a priori mental arena within the individual" (Brandom 2000, p. 5). By contrast, the pragmatist line of thought, which combines William James and John Dewey with "the later Wittgenstein, Quine, Sellars (as well as Dummett and Davidson)", develops "a growing appreciation of the significance of language for thought and mindedness generally" (ivi, p. 6).

According to Brandom, the reversal of the traditional order of explanation is exemplified by Dummett, who rejects the view that an assertion is "the expression of an interior act of judgment" in favor of understanding judgement as "the interiorization of the external act of assertion" (ivi, p. 5).

The second turning point in the history of analytic and pragmatist philosophy occurs when the philosophy of language gives way to the philosophy of mind in defining the research interests of the analytic philosophical investigation. The first turning point coincides with the linguistic turn: many philosophers become convinced that philosophical problems depended on a deceptive way of using words, and more precisely the grammar of everyday language. The second turning point could be seen both as a reaction to and a further development of the claim that philosophical research is exhausted in the elaboration of a philosophy of language. This occurs in two (often alternative) forms: the search for an ideal language, which avoids the deceptions of natural language, or the analysis of ordinary language, revealing the limits and potentialities of our routine use of words. This is due to the fact that while the linguistic turn designates a change of approach from the dominant historical-philosophical tradition of the time, the mentalistic turn, conversely, implies a change of interests, but the approach in some authors remains the linguistic one.

An emblematic case is that of Gilbert Ryle. He published *The Concept of Mind* in 1949, before Wittgenstein's *Philosophical Investigations* struck the final blow to the mentalistic order of explaining the origin of conceptual activity with its criticism of private language. In an autobiographical note, Ryle reveals that the book arose from a meta-philosophical purpose, namely "to apply, and be seen to be applying to some large-scale philosophical crux the answer […] to the question 'What constitutes a philosophical problem; and what is the way to solve it?'" (Ryle 1970, p. 12). Initially, he thought to focus on the problem of the freedom of the will as "the most suitable Gordian Knot", but then he opted for the concept of mind. In this sense, Ryle's study is far from a work on the philosophy of mind; rather, it exemplifies the application of ordinary language analysis in philosophy, aimed at dissolving the problems that give rise to the philosophy of mind. Yet, we might say that Ryle's study generated the opposite effect to the one desired. Ryle insisted that treating the mind as a physical object analogous to the body was a category mistake that generated the dogma of the ghost in the machine. Hence, it has been necessary to learn, at least in philosophy, to use this notion differently from the way certain folk psychology induces; as we talk about a person's mind, we are referring to a person's abilities to perform certain kinds of tasks. Consequently, the words that we use to refer to supposed mental states, such as "know" or "believe", actually refer to a person's disposition to behave in certain ways. According to Ryle's conception, inquiring into the nature of mental states generates nonsensical and unanswerable metaphysical questions. And yet, his critics began to argue that if one did not make assumptions about these very contents – if one did not try, that is, to understand what is inside the black box of the brain and how it works – one could not scientifically explain observable behaviour. This is how cognitive psy-

chology and generative linguistics, which underpin the computational turn in the philosophy of mind, came into being. On the contrary, those who want to defend a Rylean perspective reduce the mere linguistic approach to the problems of the mind to a strategic starting point but then try to show that Ryle's argument supports a materialistic approach to the mind-body problem, or that it paves the way for an extended approach to the mind[1].

In claiming this, I am not implying that the mentalistic turn in analytic and pragmatist philosophy merely replaces the linguistic turn by restoring the previous order. Although the two turns follow one another chronologically, they often coexist, and the reference to the primacy of language in the order of explanation remains crucial in addressing problems concerning the nature of the mind. This is the case with Sellars, as exemplified by his of the myth of Jones at the end of *Empiricism and Philosophy of Mind*. Our ability to speak publicly about the private episodes that populate our minds (i.e., thoughts and impressions) depends on our ability to learn how to use our language in the social space of reasons. It is precisely thanks to the cognitive primacy of language that we can avoid identifying the mental with the private. This means embracing a form of externalism that considers the mind as the product of the social space where reasons are given and asked for, rather than a sort of private stage that precedes social life.

The crucial point here is that the philosophy of mind usually insists on the contrast between representationalists and pragmatists. As Brandom (2000, p. 5) observes, the former tend to attribute an instrumental function to language, while the latter, taking the mind as shaped by our intersubjective use of words, question the picture of language as "a more or less convenient tool for expressing thoughts intelligible as contentful apart from any consideration of the possibility of saying what one is thinking". The problem arises when, even among the pragmatists, the "vocabulary of the tool" is used to describe language.

This is the case with John Dewey. In chapter five of *Experience and Nature*, Dewey emphasizes that communication enables natural events to move from the plane of exteriority to one where they reveal their value and meaning for human beings. Dewey (1925, pp. 168-169) acknowledges the transcendentalists' identification of logos with mind, but criticizes the fact that "logos and hence mind was conceived supernaturally". Rather, "language is a natural function of human association" (Dewey 1925, p. 173). Gestures and cries are not "primarily expressive and communicative", they are "modes of organic behavior as much as are locomo-

1 This is the case with Dennett, who, on the one hand, while embracing a materialist ontology, unlike eliminativist thinkers (such as Paul and Patricia Churchland), defends the predictive capacity of common sense, folk psychology, and introspective reports about experience (see Dennett 1986; 1992). On the other hand, in his preface to a re-edition of *The Concept of Mind*, Dennett (2000, p. XII) confesses he was struck by the resemblance between "long-disregarded Rylen themes" and some of the themes of the "hot new directions in up-to-the-minute cognitive science", such as "embodied and 'situated' cognition; your mind is not in your brain; skill is not represented; intelligence without representation".

tion, seizing and crunching" (ivi, p. 175). Accordingly, sounds became language "only when used within a context of mutual assistance and direction". With this, Dewey anticipates the position that Sellars will defend at the end of *Empiricism and Philosophy of Mind* by suggesting that Jones condenses in a fictitious character the long journey of the human being from the prehistoric cave to the modern scientific laboratory. In fact, Dewey points out that failure to recognize that the world of inner experience is "dependent upon an extension of language which is a social product and operation" led to "the subjectivist, solipsistic and egotistic strain in modern thought" (ivi, p. 173).

Dewey also criticizes empirical thinkers who identify language with the production of an "'outer expression' of 'inner state'" (ivi, p. 269). In this framework, ideas seem to acquire a prior and independent existence, so that language "'express' thought as a pipe conducts water, and with even less transforming function than exhibited when a wine-press 'expresses' the juice of grapes" (*ibid.*). Although Dewey regrets that language here is regarded only for its practical convenience and not for its intellectual significance, to the point that "the office of signs in creating reflection, foresight, and recollection is passed by", he does not abandon the view according to which language fulfils an instrumental function (*ibid.*). In fact, by quoting anthropologist Franz Boas, who identifies two key traits distinguishing the human mind from that of non-human animals – organized articulate speech and the use of versatile tools – Dewey emphasizes that "the role of tools is subject to a condition supplied by language, the tool of tools" (ivi, p. 186). With this expression, Dewey does not mean only that language is the most powerful among the tools but also that language is the tool through which things are accredited as tools and acquire a second nature.

As Dewey (ivi, p. 150) notes in chapter four of *Experience and Nature*, with the expansion of technology, "the lens, pendulum, magnetic needle, lever were used as tools of knowing, and their functions were treated as models to follow in interpreting physical phenomena, science ceased to be identified with appreciative contemplation of noble and ideal objects", becoming instead a historical enterprise, which enhanced the pragmatic dimension of human life. In chapter five, Dewey (ivi, p. 186) delves deeper into this line of thought and clarifies that "to be a tool, or to be used as means for consequences, is to have and to endow with meaning, language, being the tool of tools, is the cherishing mother of all significance". In fact, "the things usually thought of as appliances, agencies and furnishings, can originate and develop only in social groups made possible by language". This is why "only language, or some form of artificial signs, serves to register the relationship and make it fruitful in other context of particular existence" (ivi, p. 187). Since language is the original locus of concept formation (according to a view shared by the later Wittgenstein, Sellars, and other proponents of a pragmatic and linguistic approach to the problems of the mind), it is also the primary means through which objects are recognized, materials are shaped for specific tasks, and tools are designed to advance inquiries. For example, "spears, urns, baskets, snares may have originated accidentally in some consummatory consequence of natural events. But only rep-

etition through concerted action accounts for their becoming institutionalized as tools, and this concert of action depends upon the use of memoranda and communication" (*ibid.*).

Dewey's argument presents a challenge that cannot be solved by simply claiming, as Brandom does, that Dewey is a pragmatist, for he understands conceptual content in terms of practices of using concepts, but that he cannot be included among the linguistic pragmatists[2]. The issue here is not whether philosophical problems stem from misleading uses of language, but rather whether the origin of the concepts we use is social. Dewey explicitly acknowledges this by insisting on the continuity between the qualitative experience of the senses and the role of language as the tool of tools[3].

How, then, can we solve this apparent contradiction? If language is a tool, is there a risk to revert to a representationalist view according to which its task is to mirror a private order? In the next section, I address these questions by suggesting that in the context of a linguistic approach to the mind, the key difference lies in the form of language we adopt as a model – the oral or the written one.

2. A tool or a ritual?

Among the proponents of a mentalistic turn in analytic philosophy, Andy Clark comes closest to Dewey's position. Differently than Dewey, however, Clark clarifies many of the ambiguities underlying Dewey's description of the instrumental function of language by showing its inevitable hidden assumptions.

To begin with, in the tenth chapter of his essay *Being there. Putting Brain, Body, and World Together Again* (1998), Clark describes public language as the "ultimate artifact". Indeed, he argues, language

> confers on us added power of communication; it also enables us to reshape a variety of difficult but important tasks into formats better suited to the basic computational capacities of the human brain. Just as scissors enable us to exploit our basic manipulative capacities to fulfill new ends, language enables us to exploit our basic cognitive capacities of pattern recognition and transformation in ways that reach out to new behavioral and intellectual horizons (Clark 1998, pp. 193-194).

Clark arrives at this conclusion by beginning from a consideration that seems contrary to Dewey's. As we saw, in *Experience and Nature*, Dewey emphasizes the

2 Brandom 2011 holds that "Dewey did write a lot about language – what he called the 'tool of tools'", and has many good things to say about the relations between meaning and use", but "he […] would not recognizable to later philosophers of language as one of their number".

3 On Dewey's conception of language see Dreon 2014. Let me also remind Manca 2022, where I discuss Dewey's depiction of language as the tool of the tools in a general comparison between the pragmatist tradition and the situated approaches to mind derived from phenomenology.

instrumental function of language starting from the importance of communication, which brings to light the meanings inherent in things and allows for a transition from a purely external to an authentically human plane. On the contrary, Clark insists that the power of words goes beyond communication, following Dennett's description of language as a "computational transformer that allows pattern-completing brains to tackle otherwise intractable classes of cognitive problems" (*ibid.*). And yet, by communication, Dewey (1925, p. 166) means the capacity of language to turn natural events into objects, i.e., "things with a meaning". Language consists in "reading the message of things" (ivi, p. 174). On the contrary, Clark (1998, p. 195) understands communication as the mere "information transfer between the agents", which he considers an easy answer to the question concerning what public language does. This answer is subtly misleading because it overlooks the role of language in guiding and shaping our own behavior; that is, it overlooks the fact that language is "a tool for structuring and controlling action".

Even though Clark's argument assumes what he calls "minimal representationalism", this should not be confused with a return to the order of explanation that characterized philosophy before the linguistic turn. In fact, Clark rejects the idea that language is merely an outer expression of inner states, since it entertains a deep connection with human agency[4].

Clark (1998, pp. 195-196) clarifies this point by endorsing Cristopher Gauker's idea that public language should be viewed "not as a tool for representing the world or expressing one's thoughts but a tool for effecting changes in one's environment" (Gauker 1990, p. 31). Clark (1998, pp. 207-208) further illustrates this with a comparison with mangrove forests: "The mangrove grows from a floating seed which establishes itself in the water, rooting in shallow mud flats. […] The complex system of aerial roots […] soon traps floating soil, weeds, and debris". Therefore, over time, "the accumulation of trapped matter form a small island", might generate the misleading impression that the trees of mangrove grew on an island, when in fact the opposite is true. According to Clark, something like the "mangrove effect" operates in some species of human thought: "It is natural to suppose that words are always rooted in the fertile soil of preexisting thoughts. But sometimes, at least, the influence seems to run in the other direction" (ivi, p. 208). Public language, therefore, does not play a mere expressive role but rather a generative one:

4 According to Clark (1998, p. 173), the critique that embodied approaches to cognition level against representationalism does not target the notion that "brains represent aspects of a real independent world, but rather the idea of those representations as action-neutral and hence as requiring extensive additional computational effort to drive intelligent responses". Clark's minimal representationalism alignes with an "ecumenical position", according to which "minds may be essentially embodied and embedded and still depend crucially on brains which compute and represent" (ivi, p. 144). To support this view, Clark adopts a liberal notion of computation defined as the "automated information processing" (ivi, p. 159) that plays an adaptive role in guiding behavior and orienting action.

> Public language and the inner rehearsal of sentences would, on this model, act like the aerial roots of the mangrove tree – the words would serve as fixed point capable of attracting and positioning additional intellectual matter, creating the islands of second-order thought so characteristic of the cognitive landscape of *Homo sapiens* (ivi, p. 209).

By making this argument, Clark uncovers a basic assumption in contemporary linguistic approaches to the theory of mind: even when language is described as a tool, without being reduced to the mere exteriorization of some private episodes, it is primarily written language that is being considered. It is through this lens that one attributes to language the task of revealing hidden meanings inherent in things.

Clark explicitly identifies writing as the paradigmatic form of language that enhances the cognitive capacity of *Homo sapiens*. By citing Peter Carruthers (1996, p. 56), who argues that one "*first* entertain a private thought and *then* write it down", since "the thinking is the writing", Clark (1998, p. 197) treats writing as an "environmental manipulation that transforms the problem space for human brains". Language, as an artifact, is constituted by a conventional system of symbols that humans devise, refine, and exploit over the course of their social life. Its primary function is to "offload memory onto the world." In this sense, the examples to which Clark thinks of when he describes language as an external resource of human mind are "texts, diaries, notebooks, and the like as a means of systematically storing large and often complex bodies of data" (ivi, p. 201). These are sophisticated forms of environmental manipulation, in continuity with a variety of simpler strategies like "leaving an empty olive oil bottle by the door so that you cannot help but run across it […] as you set out for the shops" (*ibid.*).

If writing were not Clark's main reference for language, his comparison to scissors at the beginning of the chapter, and, later, to the small stones that some birds swallow to aid digestion would be difficult to understand (see ivi, p. 214). Human animals have constructed graphic signs much like they have constructed scissors. Besides, the pictograms used by most ancient cultures are derived from natural objects, similar to the stones birds ingest. However, the same cannot be said of the sound produced by the human voice. Vocal sounds are a product of the living body, not external resources artificially constructed or adapted from nature for different functions. This raises the question of whether proponents of a linguistic approach to the theory of mind, who avoid describing language as a tool, may have implicitly adopted oral language as the paradigm for interpreting language's role in human life.

To address this issue, let us consider Walter Ong's analysis in his *Orality and Literacy*. Ong (1982, p. 77) perfectly aligns with what Clark's argument by describing writing as a technology that, more than any other single invention, has restructured and transformed human consciousness. Writing qualifies as a technology because it involves the use of tools and materials, such as "styli or brushes or pens, carefully prepared surfaces, such as paper, animal skins, strips of wood, as well as inks or paints, and much more" (ivi, p. 81). Plato viewed writing as an external and alien technology. Today, writing is so ingrained in the formation of our cultural niche that

it is challenging for us to recognize it as a technology. In contrast, there is ongoing debate about the nature of computers and artificial intelligence. The crucial point for our discussion is that, unlike oral speech – which is fully natural for us in the sense that "every human being in every culture who is not physiologically or psychologically impaired learns to talk" (*ibid.*) – writing is completely artificial. While oral language emerges out of unconscious social dynamics, enabling us to use grammatical rules in speech without necessarily being able to encode or articulate them, "the process of putting spoken language into writing is governed by consciously contrived, articulable rule: for example, a certain pictogram will stand for a certain specific word, or *a* will represent a certain phoneme, *b* another, and so on" (*ibid.*)[5].

Unlike Plato' complains through Socrates in the *Phaedrus*, Ong does not to condemn writing as artificial but rather praises it: "Like other artificial creations and indeed more than any other", writing is "utterly invaluable and indeed essential for the realization of fuller, interior, human potentials" (*ibid.*). Ong argues that "technologies are not mere exterior aids but also interior transformations of consciousness" (*ibid.*). Following Clark, we might now say that a material scaffold like writing not only "heightens consciousness" (*ibid.*), but also restructures our brain and reshapes our environment. Still, Ong rightly emphasizes that "alienation from a natural milieu can be good for us", since "to live and to understand fully, we need not only proximity but also distance" (*ibid.*). Hence, technologies are artificial but, paradoxically, "artificiality is natural to human beings". "Technology, properly interiorized, does not degrade human life but on the contrary enhances it" (ivi, p. 82). Clark (2003) would argue that we are, in essence, natural-born cyborgs.

Writing transforms something with duration in time, such as sound, into something that extends in space, like the grapheme, thereby "making 'words' appear similar to things because we think of words as the visible marks signaling words to decoders" (Ong, 1982, p. 11). Thus, when we use written language as a paradigm to describe its role in the life of the mind, it can seem as though language is an external resource – the most powerful of the tools we have built in our niche, the tool of tools that reveals how tools function as a scaffold for the human mind. Etymologically, "*signum* […] meant the standard that a unit of the Roman army carried aloft for visual identification", thus etymologically, sign means "'the object one follows'" (ivi, p. 75). Hence, writing involves following things as they are, not as they exist in nature but as we have constructed them. In this sense, the object one follows in writing is the product of human environmental manipulation[6].

5 Nevertheless, awareness of grammar rules varies: for young people, who have not yet fully mastered grammar, it is often partial and their writing process is characterized by the involuntary application of grammar rules. In contrast, adults generally apply grammar rules prereflectively, with the ability of making them thematic if needed.

6 See also Malafouris 2013, ch. 5, who proposes an enactive interpretation of sign, according to which, in the course of cultural evolution, sign is not necessarily something that refers to something else that exists independently of it, but is rather a pragmatic constituent of the social reality it expresses.

However, Ong notes that "sight isolates, sound incorporates" (ivi, p. 71); writing is diaeretic and separative, whereas speech unifies. This distinction suggests that written language serves as an adequate paradigm for philosophical approaches focused on analyzing thought and reality, whereas oral language is more suited to approaches that emphasize the unity of mind, body, and world.

According to both Ong and Clark, the task of writing is to offload memory to an external scaffold – hence Thamus' critique in *Phaedrus* 275B that writing serves as "a remedy not for memory but for reminding". In contrast, the task of orality is to enhance memory by organizing thought through formulas and clichés. Drawing on studies by Milman Parry (1928) and Eric Havelock (1976), Ong (1982, p. 23) observes that in oral cultures, knowledge needed to be continually repeated to be retained, making "fixed, formulaic thought patterns […] essential for wisdom and effective administration," and for the social life of the community. In this context, far from being lived as an artificial technology, language was rather a ritual; speech and oral recitation were a form of life with rules.

Wittgenstein (1953, p. 19) challenges Augustine's denotative conception of language by arguing that in order to ask for the name of something, one must already be engaged in a specific practice. He effectively describes language as a form of ritual[7]. To designate objects, one must be trained in particular "language games": while a painter, upon hearing the word "sepia," looks at his palette, the fisherman casts his net (see ivi, p. 18). Similarly, when Ryle focuses on the misleading use of the term "mind" to indicate a series of dispositions and behaviors that come to designate an hidden entity over time, he is unmasking a ritual. When Jones teaches his Rylean fellows to use their vocabulary to articulate internal episodes, he is introducing a new ritual within the community. When Brandom (2000, p. 14) identifies the practice of giving and asking for reasons with the center of the city that Wittgenstein likens to language (1953, p. 11), he underscores how, in a society where written language prevails over oral traditions, the primary practice is reasoning rather than mere transmission.

In this context, Clark's minimal representationalism does not seem so harmless. There is a risk that language could be perceived merely as a technology that extends the mind into the world, under the assumption that the activity of the 'naked mind' is limited to internal information processing. Although Clark describes a co-evolution of the inner and outer, characterized by continuous, mutually modulatory, and non-decouplable interactions, this perspective might overlook the fact that a mind, even one that minimally engages with technology (noting that we are inherently cyborgs), also engages in activities such as playing games and performing rituals through oral language.

7 Notice that, according to Ong (1982, p. 36), Augustine's denotative conception of language can be explained by recalling that he lived in a culture that "knew some literacy but still carried an overwhelmingly massive oral residue", whereby "every concept conveyed in a word is a kind of formula, a fixed way of processing the data of experience".

Dewey's description of language, while somewhat ambiguous, acknowledges that "things become instruments ceremonially and institutionally" (Dewey 1925, p. 186). When material things acquire symbolic value and contribute to the establishment of new linguistic games (which, in the prehistory of the human species, are actually the firsts of all games), this is due to a system of social practices facilitated by language, including the creation of instruments suitable for the survival of the species.

3. A niche builder?

Is writing really a technology that modifies the ecological niche of *Homo sapiens*? To answer this question, let me come back to Clark (2006). In his text, Clark recasts the biological notion of "niche" by highlighting the existence of a cognitive dimension that should be able to modify the cultural environment in which human beings dwell. Accordingly, to answer the previous question we have to examine whether this interpretation of the ecological niche is valid. Before doing so, we need to clarify what Clark means by "cognitive," as this understanding sheds light on why writing poses a metaphilosophical issue.

Contrary to Fodor's (1987; 1998), portrayal of language as a means of translating the presumed language of private thought (or "Mentalese") into intersubjective expressions, Clark (2006, p. 372) characterizes language as a "cognitive tool enabling us to objectify, reflect upon, and hence knowingly engage with, our own thoughts, trains of reasoning, and personal cognitive characters". In other words, the cognitive role of language lies in its capacity to stimulate "thinking about thinking" (*ibid.*). This gives language a metaphilosophical dimension, for the philosopher who makes it her object of investigation is simultaneously reflecting upon the condition for the practice of philosophical thought itself. Consequently, Clark shifts from describing language as a self-constructed cognitive niche to defining it as a "*super-niche*", because language allows us to "construct an open-ended sequence of new cognitive niches", including "environments in which to think, reason and perform" (*ibid.*)[8].

First, it is important to note how Clark ambiguously oscillates between the description of language as a tool that enables the construction of the cognitive niche,

8 Clark (2005, p. 257) delves further into this theme by arguing that as a cognitive niche language plays at least "three distinct but interlocking roles in thought and reason": 1) insofar as it labels, it "creates a new realm of perceptible objects upon which to target basic capacities of statistical and associative learning", and, by so doing, it functions as a tool for grouping that generates a spatial re-organization; 2) language scaffolds action and attention, by orienting our resources on "complex, conjunctive, or otherwise elusive, elements of the encountered scene" (ivi, p. 261); 3) by directing our thought and reasoning, language provides "a means of controlling or scaffolding inwardly-directed attentional processes, and hence of indirectly manipulating our own minds" (*ibid.*).

by modifying the ecological niche shaped by *Homo sapiens*, and characterizing it as the cognitive niche itself, namely as the cultural space arising out of human manipulation of the physical environment[9]. It seems more accurate to describe language as a tool that shapes a niche, rather than taking it as the cultural environment itself that *Homo sapiens* has modified over millennia for survival. Second, although Clark refers to both the written and oral dimensions of language, it is clear that his model is the former. Indeed, for Clark (2006, p. 373), language becomes a niche through its ability to allow embodied agents to introduce "new layers of material structure in an already complex world," with written signs being central to this materiality, more so than the sound of the human voice. Furthermore, in highlighting language's capacity to create its proper objects, Clark refers to the ability to formulate thought both verbally and in writing (see ivi, p. 372); still, the use of words in "inner rehearsal" (i.e., in introspective self-reflection) is compared to the role of writing in the struggle to formulate thoughts, rather than as a mere safeguard against forgetting (ivi, p. 373).

To support his view, Clark (1998) draws on Merlin Donald's exploratory study of human cognitive evolution, *Origins of Modern Mind*. In particular, Clark highlights the critical role that, according to Donald, external scaffolding, such as writing, plays in the development of human thought. Clark focuses on the turning point represented by the Greeks in the history of the human species. For Donald, the Greeks introduced a fundamental innovation by using written language to record the *processes* of thought and argument. By the time the Greek culture flourished, the evolution of writing was complete: "The Greeks had the first truly effective phonetic system of writing, so successful that it has not really been improved since. They also possessed advance systems of numeration and geometric knowledge" (Donald 1991, p. 341). This allowed them to develop a "theoretic attitude," a combinatory strategy distinct from the mythic attitude of the earlier cultures: "The Greeks, collectively, as a society, went beyond pragmatic or opportunistic science and had respect for speculative philosophy, that is, reflection for its own sake" (*ibid.*). Hence, alphabetic writing facilitated the transformation of language from a mimetic mode of communication and social rituals into an external tool that scaffolds cognitive activity. This process is one with the advent of philosophy.

The metaphilosophical implication of the issue we are exploring are evident. However, we still need to clarify whether the characterization of writing as a niche-builder is merely a metaphor or designates the evolutionary function of this technology.

Donald distinguishes between the traditionally defined biological memory of humans and the external symbolic material that functions as their effective "working memory". As the Greeks acquired and consolidated the habit of recording

9 Clark explicitly acknowledges this by claiming that "language straddles the boundaries between inner and outer, acting both as a self-constructed niche, and then as part and parcel of the niche-occupying animal" (Clark 2005, p. 265).

ideas – essentially, "externalizing the process of oral commentary events" – they removed from biological memory a collective process of examination, creation, and verification, and placed it "in the public arena" (ivi, p. 342). Thus, "what the Greeks created was much more than a symbolic invention, like the alphabet, or a specific external memory medium, such as improved paper or printing". Rather, "they founded the *process* of externally encoded cognitive exchange and discovery" (ivi, pp. 342-343).

Clark (1998, p. 207) quotes this last passage in order to point out that "language is not the mere imperfect mirror of our intuitive knowledge". Rather, it is "part and parcel of the mechanism of reason itself". In other words, written language is not just a tool for representing the world and categorizing the material delivered by sensibility. It is, in fact, an extension of the embodied mind's activity in manipulating its environment.

Thus, Donald and Clark seem to believe that the description of writing as a niche-builder is not merely metaphorical. However, they do not fully address the relationship between the development of cultural processes and the evolution of *Homo sapiens*' ecological niche. To tackle this issue in the conclusion of this article, I must expand my references once again.

As we have argued, the main problem is that, when Clark describes language as a niche-builder, he expands the biological notion of niche. While "niche" refers to a purely natural environment and has a species as its focus, Clark's notion comes to encompass cultural spaces featuring individuals, peoples, societies, as protagonists, which alternate throughout historical epochs rather than geological eras. The history of philosophy offers other names for the cultural and cognitive niche Clark describes, such as Sellars' space of reasons or Husserl's lifeworld, which would not lead to this confusion.[10]. But amending Clark's terminology alone does not solve the problem. Instead, I see two possible solutions. The first can be found in chapter six of *Niche Construction*, where Odling-Smee, Laland, and Feldman – prominent advocates of the niche construction theory – explicitly address the role of learning and cultural processes in human niche construction. The second solution is in a paper of Daniel Dor and Eva Jablonka on cultural evolution and genetic selection, which Jablonka later expanded on with Marion J. Lamb – *Evolution in Four Dimensions*.

Odling-Smee, Laland, and Feldman (2003, p. 242) agree that "cultural information, expressed in the use of tools, weapons, fire, cooking, symbols, language, agriculture, and trade may also have played an important role in driving hominid evolution in general, and the evolution of the human brain in particular". In the standard neo-Darwinian view, however, cultural processes are simply another

10 In Manca (2024), I argue that preserving the distinction between the biological notion of "niche" and the phenomenological one of "lifeworld" allows us to understand to what extent the bodily, social, and cultural experiences of human individuals over historical epochs can help the human species gradually change, and improve, the niche that it has built over geological ages.

component of the human phenotype. The only way they can affect genetic evolution is "by influencing the fitness of individual organisms, and hence the probability that different individuals in a population will survive and reproduce to pass on their genes to the next generation" (ivi, pp. 245-246). Here, cultural processes help determine which organisms, cultures, and traditions survive and spread, with evolution equated entirely to genetic inheritance. In contrast, proponents of niche-construction theory extend evolutionary theory to include a "'triple-inheritance'" (ivi, p. 251). In addition to the genetic inheritance, they consider both the environmental and the cultural inheritance. In their view, cultural processes also influence genetic inheritance indirectly by altering environmental niches, that is, by determining how human ecological inheritance can exert selective pressures: "By modifying environment, niche construction creates artifacts and other ecologically inherited resources that not only act as sources of biological selection but also facilitate learning and perhaps mediate cultural traditions" (ivi, p. 261).

In this form of influence, the key actor is not the individual who contributes to the transmission of his or her genetic inheritance (usually in an unconscious manner), without any involvement of capacities acquired in social learning. Rather, "the information-acquiring entity" is "a group of interacting organisms" (ivi, p. 258). For example, the construction of cities and gathering spaces creates new health risks, as we have seen in the recent spread of epidemics. In the case that interests us, advancements in written language technologies have altered everyday human life, consolidating new cognitive and affective habits. As Donald (1991, p. 382) notes, "our genes may be largely identical to those of a chimp or gorilla, but our cognitive architecture is not". What we have changed through our manipulation of the ecological niche, including the theoretical attitude fostered by writing, is not our genetic code, but the way we make it actual: "We act in cognitive collectivities, in symbiosis with external memory systems. As we develop new external symbolic configurations and modalities, we reconfigure our own mental architecture in nontrivial ways" (*ibid.*). Thus, the transition from the mythic to the theoretical attitude – of which philosophical thinking is the most sophisticated instantiation – has led to "one of the greatest reconfiguration of cognitive structure in mammalian history, without major genetic change" (*ibid.*).

This solution is the most cautious but also the most ambiguous. Why speak of cognitive reconfiguration if we then downplay the possibility that traits acquired through social learning have undergone genetic assimilation?

Jablonka and the others are more daring. They delve deeper into the criticism of the standard gene-centered version of Darwinian theory, which the original proponents of niche construction had already challenged. They revive the possibility of "Lamarckian mechanisms that allow 'soft inheritance' – the inheritance of genomic changes induced by environmental factors" (Jablonka, Lamb 2005, p. 7). Their key theoretical tool is the so-called Baldwin effect, which proposes that when faced with a new environmental challenge (e.g., a

new predator, a climatic change, an epidemy etc.), individuals first adapt to this challenge by learning. Successively, if the challenge persists, and if the necessary learning process results lengthy and costly, "individuals will be selected for their ability to respond appropriately to the challenge without the full investment in the learning process: in other words, individuals who are more 'instinctive' responders to the challenge will be selected" (Dor, Jablonka 2000, p. 45). In accordance with this view, Jablonka and the others envisage an arbitrary stage in the evolution of language, in which "individuals were capable of *thinking* and *feeling* much more than they could *say*" (ivi, p. 48). Then, they assume that, at different points in time, groups of individuals introduced linguistic innovations that established themselves for their "*adaptive value* as a tool of social communication" (ivi, p. 49). Consider once again how the Greeks exploited the cognitive architecture provided by visual symbolism. As Donald (1991, pp. 341-342) emphasizes, "they founded abstract geometry and the idea of formal mathematical proofs, and the first systematic taxonomy and embryology of living species from all over the known world. They had the first theory-based system of cosmology and achieved great advances in theater, sculpture, public administration, and architecture".

This argument suggests the following. In the early stages, linguistic innovations affect and alter what we might call the 'social niche' of a group of individuals, by analogy with the natural environment of a species. This change occurs over a period that, from the perspective of individuals, may be perceived as long, but from an evolutionary standpoint is quite short. Later on, if the inhabitants of this modified cultural space are selected based on their ability to instinctively use these innovations, they gradually adapt to the niche by assimilating new linguistic behaviors genetically. In this way, what is called niche only by analogy has an impact on the effective ecological niche of the human species, not only of a group of individuals. As Jablonka and Lamb (2005, p. 309) emphasize, "cultural evolution moves faster than genetic evolution", and therefore "it is far more likely that the conventions that correspond to the stable aspects of life will be assimilated".

Thus, at an earlier stage, the hypothesis is that, before the advent of writing, humans were likely more capable social agents. They had better memories, greater voluntary control of sound production, and superior know-how. In the later stage, individuals developed a cognitive constitution more inclined towards the use of signs. The external resources they employ allowed them "to pursue manipulations and juxtaposition of ideas and data that would quickly baffle the un-augmented brain" (Clark 1998, p. 207). Ultimately, the offloading of problem-solving tasks and memory functions onto external processes enabled them to refine a theoretical attitude. Put simply, if Jones represents those individuals who introduced writing as a technological innovation into their cultural space, we are the descendant of the individuals who were able to genetically assimilate that innovation into their ecological niche. What this means for the future evolution of our species remains to be seen.

In conclusion, the mentalistic turn in linguistic approaches to the philosophy of mind excludes the possibility, as Brandom (2000, p. 3) suggests, of dealing with what separates concept users from those who are not. Such a choice would not allow us to discern the assumptions of what we want to investigate, and it would hinder us from the task of fully making explicit what it means to articulate reasons. Instead, the mentalistic turn allows us to reflect on the role that the evolution of language has played in modifying the niche of *Homo sapiens*.

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